



North Carolina Department of Environment and Natural Resources

Dexter Matthews, Director

Division of Waste Management

Beverly Eaves Perdue, Governor
Dee Freeman, Secretary

November 23, 2009

Sent Via U.S. Mail and Email - sgarrison@madisoncountync.org

Mr. Steve Garrison
Madison County Manager
P.O. Box 579
Marshall, NC 28753

Re: Tetrachloroethene (PCE) Exceedance Beyond the Facility Compliance Boundary
Madison County Landfill, Permit # 58-02

Dear Mr. Garrison:

Groundwater monitoring at the closed and unlined Madison County Landfill (Permit #58-02) has documented the confirmed presence of one Appendix I volatile organic compound, Tetrachloroethene (PCE), in a residential water supply well (DW-02-Edwards with a total depth of 380 feet) at concentrations exceeding the North Carolina 2L Groundwater Standard for PCE (0.7 micrograms per liter) beyond the facility's compliance boundary. The groundwater exceedance was first documented during the facility's April 2009 semiannual water quality sampling event. PCE was detected at 15.5 micrograms per liter during the April 2009 sampling event.

In response, Madison County and their environmental consultant for the landfill, Altamont Environmental, Inc., have conducted additional sampling of the DW-02-Edwards residential water supply well from June 2009 through September 2009, conducted an over-pumping/purging event in August 2009, conducted a downhole video inspection of the DW-02-Edwards residential water supply well, and the owners of the DW-02-Edwards residential water supply well have been provided bottled water. Madison County and Altamont Environmental, Inc. believe the PCE contamination within the DW-02-Edwards residential water supply well is from a shallow localized source and not from the closed and unlined Madison County Landfill.

In the meantime, Madison County and Altamont Environmental, Inc. have had open communication with the Solid Waste Section regarding this issue since October 2009. However, at solid waste management facilities where groundwater contamination is found to have migrated beyond the compliance boundary and onto adjacent properties, the solid waste management facility owner is liable for any assessment and corrective action that may be required.

In accordance with 15A NCAC 2L .0106 (d)(1), a person conducting or controlling an activity under the authority of a permit which results in an increase in concentration of a substance in excess of the standards at or beyond the review boundary to undertake measures to prevent a violation of standards at the compliance boundary. Per 15A NCAC 2L .0107, a compliance boundary shall be established 250 feet from the waste boundary, or 50 feet within the property boundary, whichever point is closer

to the source. In addition, 15A NCAC 2L .0106(d)(2) requires any person conducting or controlling an activity under the authority of a permit which results in an increase in concentration of a substance in excess of the standards at or beyond the compliance boundary to assess the nature and extent of the contamination and submit the results of the investigation and a plan for corrective action to the Division. Finally, Condition #8 of the December 21, 1995 Closure Letter for Permit #58-02 provides: "Groundwater quality at this facility is subject to the "Classification and Water Quality Standards Applicable to the Groundwaters of North Carolina", 15A NCAC 2L. 15 NCAC has been re-denominated as Chapter 15A of the North Carolina Administrative Code. "This includes, but is not limited to, the provisions for detection monitoring, assessment, and corrective action."

Madison County is therefore responsible for the post-closure care and monitoring of the solid waste management facility pursuant to the rules codified at 15A NCAC 13B Section .0500, *et. seq.*, .0600, *et. seq.*, and N.C.G.S. 130A-309.27. As a result, it is imperative from a human health, environmental, and public perception standpoint that the source of the PCE be determined as soon as possible. Based upon Madison County's and their consultant's explanation that the PCE contamination is derived from a shallow localized source, please demonstrate that a source other than the closed and unlined Madison County Landfill caused the contamination. Madison County shall acquire the services of a North Carolina licensed professional geologist and submit a work plan to the Solid Waste Section for the demonstration of the source of the environmental contamination of PCE. The Solid Waste Section will review the submitted work plan, approve, or request additional information or amendments before implementation. Please submit this work plan within 30 days of receipt of this letter. Finally, Madison County shall implement the approved work plan.

In addition, Dr. Kenneth Rudo, a Toxicologist with the State of North Carolina, has evaluated the health risk posed by the PCE contamination within the residential water supply well based upon the April 2009 and June 2009 sampling results. During my November 11, 2009 phone conversation with Dr. Rudo, he recommended that the homeowners should be using bottled water and that they should be limiting their showering and bathing times to less than ten minutes. Dr. Rudo also recommended that the Madison County Health Department collect and analyze a sample from the DW-02-Edwards residential water supply well. As a result of Dr. Rudo's recommendation and my November 23, 2009 phone conversation with Douglas McVey with the Madison County Health Department, the Madison County Health Department will collect a water sample from the wellhead of the DW-02-Edwards residential water supply well and analyze the water sample for Appendix I constituents (volatile organic compounds and metals). Please submit the DW-02-Edwards residential water supply well sampling analytical results to the Solid Waste Section within 10 days of receiving the analytical results from the laboratory. The analytical results will also be forwarded to Dr. Rudo for his health risk evaluation.

The Solid Waste Section solicits your cooperation and would like to remind you that it is your responsibility to comply with the requirements of the rules and statutes since the rules are self-implementing. Please contact me if you have any questions or concerns regarding this letter at 919-508-8500 or by email at jaclynne.drummond@ncdenr.gov. Thank you for your anticipated cooperation with this matter.

Sincerely,



Jaclynne Drummond
Hydrogeologist
Environmental Compliance
Solid Waste Section

cc via certified mail
(7008 0150 0000 3068 3506)

Diane and Joel Edwards, Homeowners of 70 Long Branch Road
(DW-02-Edwards residential water supply well)

cc via email:

Jim Huff, Madison County Solid Waste Director
Douglas McVey, Madison County Health Department
Landon Davidson, Aquifer Protection
Joel Lenk, Altamont Environmental, Inc.
Alec McBeth, Altamont Environmental, Inc.
Mark Poindexter, Field Operations Supervisor
Deb Aja, Western District Supervisor
Andrea Keller, Environmental Senior Specialist
Solid Waste Section Central Files